CLAIMS:

1. A system for dissipating heat from a high power density device, the system comprising:
a pathway for transport of a liquid metal thermal transfer fluid, the pathway including a portion in close thermal communication with the high power density device; and
at least one electromagnetic pump for motivating flow of the liquid metal thermal transfer fluid through the liquid metal thermal transfer pathway away from and back to the high power density device,
wherein the high power density device is located in a folding device, and
wherein at least a portion of the liquid metal thermal transfer pathway traverses a bend in the folding device.

2. The system of claim 1,
wherein the bend traversing portion of the liquid metal thermal transfer pathway includes a flexible conduit.

3. The system of claim 1,
wherein the bend traversing portion of the liquid metal thermal transfer pathway includes a hinge that defines an integrated conduit therethrough.

4. The system of claim 1, further comprising:
a heat pipe; and
a heat exchanger coupled to transfer heat between the liquid metal thermal transfer fluid and the heat pipe.

5. The system of claim 1, further comprising:
the liquid metal thermal transfer fluid.

6. The system as recited in claim 1,
wherein the pathway portion in close thermal communication with the high power density device includes a solid-fluid heat exchanger.

7. The system as recited in claim 1,
wherein the pathway portion in close thermal communication with the high power density device includes a liquid metal chamber that allows direct thermal contact between the high power density device and the liquid metal.

8. The system of claim 1, further comprising:

a heat sink separated from the high power density device by a heat transfer path that includes the bend traversing portion of the liquid metal thermal transfer pathway.

9. A system for dissipating heat from a high power density device, the system comprising:
a pathway for transport of a liquid metal thermal transfer fluid, the pathway including a portion in close thermal communication with a heat pipe; and
at least one electromagnetic pump for motivating flow of the liquid metal thermal transfer fluid through the pathway away from and back to the heat pipe,
wherein the pathway for transport of the liquid metal thermal transfer fluid and the heat pipe together define a heat transfer path away from the high power density device.

10. The system of claim 9,
wherein the high power density device is located in a folding device, and
wherein at least a portion of the liquid metal thermal transfer pathway traverses a bend in the folding device.

11. The system of claim 10,
wherein the bend traversing portion of the liquid metal thermal transfer pathway includes a flexible conduit.

12. The system of claim 10,
wherein the bend traversing portion of the liquid metal thermal transfer pathway includes a hinge that defines an integrated conduit therethrough.

13. The system of claim 9,
wherein the liquid metal thermal transfer pathway includes a portion in close thermal communication with the high power density device.

14. The system of claim 9,
wherein at least a portion of the liquid metal thermal transfer pathway is formed using a flexible conduit.

15. The system of claim 9, further comprising:
the liquid metal thermal transfer fluid.

16. A method for dissipating heat from a high power density device, the method comprising:
transferring heat from the high power density device to a liquid metal thermal transfer fluid;
motivating flow of the liquid metal thermal transfer fluid away from and back to the high power density device in a closed cycle fluid pathway; and
transferring heat from the liquid metal thermal transfer fluid flow to a heat pipe.

17. The method of claim 16, further comprising:
as part of the motivated flow of liquid metal thermal transfer fluid away from and back to the high power density device, transporting the liquid metal thermal transfer fluid through a flexible conduit portion of the closed cycle fluid pathway.

18. The method of claim 16, further comprising:
as part of the motivated flow of liquid metal thermal transfer fluid away from and back to the high power density device, transporting the liquid metal thermal transfer fluid through a bend traversing portion of the closed cycle fluid pathway.

19. The system of claim 17, further comprising:
increasing and decreasing bend of the bend traversing portion of the closed cycle fluid pathway during the flow of liquid metal thermal transfer fluid.

20. The system of claim 18,
wherein the bend traversing portion of the closed cycle fluid pathway includes a flexible conduit portion.

21. The system of claim 18,
wherein the bend traversing portion of the closed cycle fluid pathway includes a hinge that defines an integrated conduit therethrough.

22. A method for dissipating heat from a high power density device, the method comprising:
transferring heat from the high power density device to a liquid metal thermal transfer fluid;
motivating flow of the liquid metal thermal transfer fluid away from and back to the high power density device in a closed cycle fluid pathway that traverses a bend in a folding device.

23. The method of claim 22, further comprising:
wherein the bend traversing portion of the closed cycle fluid pathway includes a flexible conduit portion.

24. The method of claim 22, further comprising:
wherein the bend traversing portion of the closed cycle fluid pathway includes a hinge that defines an integrated conduit therethrough.

25. The method of claim 22, further comprising:
increasing and decreasing the bend during the flow of liquid metal thermal transfer fluid.

26. The method of claim 22, further comprising:
transferring heat from the liquid metal thermal transfer fluid flow to a heat pipe.